Solution 13.1

a) Notes to the financial statements

1. <u>Significant Accounting Policies:</u>

1.1 Statement o compliance

These financial statements have been prepared in accordance with the approved accounting standards as applicable in Pakistan. Approved accounting standards comprise of such International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board as are notified under the Companies Ordinance,1984, provisions of and directives issued under the Companies Ordinance, 1984. In case the requirements differ, the provisions or the directives of the Companies Ordinance, 1984 shall prevail.

1.2 Accounting Convention

These financial statements have been prepared on the basis of historical cost convention

1.3 Inventory

Inventory is valued at the lower of cost and net realisable value. Cost is determined on first in, first-out basis. Cost of work-in-progress and finished goods include all direct costs and an appropriate portion of manufacturing overhead expenses.

1.4 Revenue

Revenue represents net invoiced sales to customers. Other income includes commission and rental income.

b) Further information

2. Inventory

Finished goods
Work-in-progress
Raw materials
Consumable stores

Solution 13.2

		Debit	Credit
1 July 20X9			
Inventory	*28 000 x 80%*	22 400	
Settlement discount allowance (asset)	*28 000 x 20%*	5 600	
Creditors	*30 000 – 2 000*		28 000
Purchase of inventory on credit			
2 September 20X9			
Creditors		28 000	
Bank	*30 000 – 2 000*		28 000
Payment for inventory purchased (only net of trade discount)			
Discount forfeited (expense)		5 600	
Settlement discount allowance (asset)			5 600
Reversal of allowance (missed early settlement date)			

Solution 13.3

Scenario a)

Class of inventory	*Cost*	*NRV if sold in present condition*	*NRV if sold as completed product*	*NRV applicable*
Raw materials	140 000			
Used in moisturising lotion	65 000	60 000	55 000	60 000
Used in sunblock	75 000	60 000	80 000	80 000
Work in progress	95 000			
Moisturising lotion	40 000	30 000	35 000	35 000
Sunblock	55 000	45 000	50 000	50 000
Finished goods	190 000			
Moisturising lotion	90 000	N/A	140 000	140 000
Sunblock	100 000	N/A	80 000	80 000

Class of inventory		*Adjusted Value*
Raw materials		135 000
Used in moisturising lotion		60 000
Used in sunblock		75 000
Work in progress		85 000
Moisturising lotion		35 000
Sunblock		50 000
Finished goods		170 000
Moisturising lotion		90 000
Sunblock		80 000
Total net realisable value	*135 000 + 85 000 + 170 000*	390 000
Total cost before	*140 000 + 95 000 + 190 000*	(425 000)
Total write down required		35 000

Solution 13.3 continued …

Scenario b)

Class of inventory	*Cost*	*NRV if sold in present condition*	*NRV if sold as completed product*	*NRV applicable*
Raw materials	140 000			
Used in moisturising lotion	65 000	60 000	55 000	55 000
Used in sun-block	75 000	60 000	80 000	75 000
Work in progress	95 000			
Moisturising lotion	40 000	30 000	35 000	35 000
Sun-block	55 000	45 000	50 000	50 000
Finished goods	190 000			
Moisturising lotion	90 000	N/A	140 000	90 000
Sun-block	100 000	N/A	80 000	80 000

Class of inventory		*Adjusted Value*
Raw materials		130 000
Used in moisturising lotion		55 000
Used in sunblock		75 000
Work in progress		85 000
Moisturising lotion		35 000
Sunblock		50 000
Finished goods		170 000
Moisturising lotion		90 000
Sunblock		80 000
Total net realisable value	*130 000 + 85 000 + 170 000*	385 000
Total cost before	*140 000 + 95 000 + 190 000*	(425 000)
Total write down required		40 000

Solution 13.4

a)

1. Fixed overhead application rate

$$\frac{\text{Fixed overheads}}{\text{Greater of budgeted production and actual production}}$$

$$= \frac{C20\ 000}{40\ 000}$$

= C0.50 / unit

2. Value of finished goods on hand at year-end

Cost:		
- labour and other conversion costs	(given: C3 x 500u)	C1 500
- material	(given: C2 x 500u)	C1 000
- fixed overheads	(W1: C0.50 x 500u)	C 250
		C2 750
Net realisable value:	(given)	C3 000
Inventory balance at year end:	Lower of cost or net realisable value*	C2 750

*There was no need for a write down of the inventories since the cost of C2 750 is less than the NRV of C3 000.

b)

Cost of inventories		**C**
Finished goods (see above)		2 750
Work-in-progress		235 000

Net realisable value of inventories		**C**
Finished goods (sales value after year-end)		3 000
Work-in-progress:		230 050
Sales value (235 000 + 12 000) x 1.15	284 050	
Less costs to complete	(12 000)	
Less selling costs	(42 000)	

Write-down of work in progress:	**C**
Cost	235 000
Net realisable value	(230 050)
	4 950

Inventory balances at year end:	**C**
Finished Goods (at cost*)	2 750
Work-in-progress (at net realisable value **)	230 050
	232 800

*The finished goods are not written down because the cost of C2 750 is less than the NRV of C3 000.
**The work in progress is written down because its cost of C235 000 is greater than its NRV of C230 050.

Solution 13.4 continued . . .

c)

STOCKY LTD.
STATEMENT OF FINANCIAL POSITION AT ….

	Note	C
ASSETS		
Current assets		
Inventories	3	252 800

STOCKY LTD.
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED ….

3. Inventories	*Workings:*	**C**
Finished goods	See part (b)	2 750
Work-in-progress	See part (b)	230 050
Raw materials	Given	20 000
		252 800

All of the raw materials have been offered as security for a loan (see note ….).

Solution 13.5

Part a)

i)

Variable manufacturing costs:	
- direct labour (C3 x 500 units)	1 500
- direct materials (C4 x 500 units)	2 000
- variable overheads (C2 x 500 units)	1 000
Fixed manufacturing overheads:	300
- actual fixed manufacturing overhead absorbed per unit:	
Fixed manufacturing overheads	
Greater of BP or AP (BP)	
= C30 000/ 50 000 = C0.60/u	
- fixed overheads still in inventory: C0.60 x 500 u = C300	
Value of inventory at year end	4 800

ii)

Fixed overheads absorbed (capitalised):	*C0.60 x 30 000*	18 000

iii)

Fixed overheads still in inventory at year-end	*C0.60 x 500*	300

iv)

Fixed manufacturing overheads expensed to cost of inventories expense:		
• Through goods sold	*C0.60 x (0u + 30 000u – 500u)*	17 700
• Underproduction (under-absorption of fixed manufacturing overheads)	*C30 000 - 18 000 or C0.60 x (50 000u – 30 000u)*	12 000
		29 700

v)

		Debit	Credit
20X1			
Raw materials (asset)	*4 x 30 000*	120 000	
Bank			120 000
Raw materials purchased			
20X1			
Work-in-progress (asset)	*3 x 30 000*	90 000	
Bank			90 000
Labour costs			
20X1			
Work-in-progress (asset)	*2 x 30 000*	60 000	
Bank			60 000
Variable manufacturing overheads			
20X1			
Fixed manufacturing overhead (suspense)	*given*	30 000	
Bank			30 000
Fixed manufacturing overheads			
20X1			
Work-in-progress (asset)	*0.60 x 30 000 units*	18 000	
Fixed manufacturing overhead (suspense)			18 000
Fixed man. overheads allocated based on normal production			
20X1			
Fixed manufacturing overheads (expense)	*30 000 – 18 000*	12 000	
Fixed manufacturing overhead (suspense)			12 000
Unallocated fixed manufacturing overheads expensed (under-recovery)			
20X1			
Work-in-progress (asset)		120 000	
Raw materials			120 000
Raw materials used: 100% used (no opening or closing balances)			

Solution 13.5 continued …

Part a) continued …

		Debit	Credit
20X1			
Finished goods (asset)	*90K + 60K + 18K + 120K*	288 000	
Work-in-progress (asset)			288 000
Work-in-progress completed: 100% (no opening or closing balances)			
20X1			
Cost of sales (expense)	*(0 + 288K)/ 30 000 x (30 000 – 500)*	283 200	
Finished goods (asset)			283 200
Finished goods sold			

vi)

Cost of inventories expense:		
Goods sold	*(4 + 3 + 2 + 0.60) x (0u + 30 000u – 500u)*	283 200
Underproduction (under-absorption of fixed manufacturing overheads)	*C30 000 - 18 000 or C0.60 x (50 000u – 30 000u)*	12 000
		295 200

Part b)

i)

Variable manufacturing costs:
- direct labour (C3 x 500 units) 1 500
- direct materials (C4 x 500 units) 2 000
- variable overheads (C2 x 500 units) 1 000

Fixed manufacturing overheads: 250
- actual fixed manufacturing overheads absorbed per unit:
  Fixed manufacturing overheads
  Greater of BP or AP (AP)
  = C30 000/ 60 000 = C0.50/u
- fixed overheads still in inventory:
  C0.50 x 500 u = C250

Value of inventory at year end 4 750

ii)

Fixed overheads absorbed (capitalised): *C0.50 x 60 000u* 30 000

iii)

Fixed overheads still in inventory at year-end: *C0.50 x 500u* 250

iv)

Fixed manufacturing overheads expensed to cost of inventories expense:

• Through goods sold	*C0.50 x (0u + 60 000u – 500u)*	29 750
• Underproduction (under-absorption of fixed manufacturing overheads)	*N/A because the company manufactured more than normal (not less than normal)*	0
		29 750

v)

		Debit	Credit
20X1			
Raw materials (asset)	*4 x 60 000*	240 000	
Bank			240 000
Raw materials purchased			
20X1			
Work-in-progress (asset)	*3 x 60 000*	180 000	
Bank			180 000
Labour costs			
20X1			
Work-in-progress (asset)	*2 x 60 000*	120 000	
Bank			120 000
Variable manufacturing overheads			

Solution 13.5 continued …

Part b) continued …

		Debit	Credit
20X1			
Fixed manufacturing overhead (suspense)	*Same as part A*	30 000	
Bank			30 000
Fixed manufacturing overheads			
20X1			
Work-in-progress (asset)	*0.60 x 60 000 units*	36 000	
Fixed manufacturing overhead (suspense)			36 000
Fixed man. overheads allocated based on normal production: see comment 1 below (and comment 3)			
20X1			
Fixed manufacturing overhead (suspense)	*30 000 – 36 000*	6 000	
Work-in-progress (asset)			6 000
Over-allocated fixed manufacturing overheads reversed: see comment 2 below (and comment 3)			
20X1			
Work-in-progress (asset)	*Same as part A*	240 000	
Raw materials			240 000
Raw materials used: 100% used (no opening or closing balances)			
20X1			
Finished goods (asset)	*180K + 120K + **36K – 6K** + 240K*	570 000	
Work-in-progress (asset)			570 000
Work-in-progress completed: 100% (no opening or closing balances)			
20X1			
Cost of sales (expense)	*(0 + **570K**)/ **60K** x (**60K** – 500)*	565 250	
Finished goods (asset)			565 250
Finished goods sold			

Comment 1: Fixed manufacturing overheads are first allocated to the inventory account (work-in-progress) using *normal budgeted* production.
Comment 2: If by year-end, the actual production exceeds the normal production, the amount allocated to inventory will be too great and must be decreased (reversed out).
Comment 3: If during the year it becomes apparent that the actual production will be abnormally high (higher than normal production) then the fixed manufacturing overhead application rate (FMOAR) may be revised earlier in the year to be:

Fixed manufacturing overheads
Greater of BP or AP (AP)
= C30 000/ 60 000 = C0.50/u

In this case the journals during the year would have been as follows:

		Debit	Credit
20X1			
Work-in-progress (asset)	*0.50 x 60 000 units*	30 000	
Fixed manufacturing overhead (suspense)			30 000
Fixed man. overheads allocated based on actual production:			

No further journal entry relating to reversing over-applied overheads would then have been necessary.

vi)

Cost of inventories expense:		
Goods sold	*(4 + 3 + 2 + 0.50) x (0u + 60 000u – 500u)*	565 250
Overproduction (over-absorption of fixed manufacturing overheads)	*Debit suspense account; credit inventory account: no effect on expense*	0
		565 250

Solution 13.6

a) Journals

		Debit	Credit
20X1			
Raw materials (asset)	*1 020 000 – 20 000 (trade discount) – 30 000 (cash discount)*	970 000	
Bank / creditors	*1 000 000 – 30 000*		970 000
Raw materials purchased			
20X1			
Work-in-progress (asset)	*3 000 000 x 60%*	1 800 000	
Wages (admin expense)	*3 000 000 x 40%*	1 200 000	
Bank	*Given*		3 000 000
Wages paid: 60% manufacturing and 40% non-manfacturing			
20X1			
Work-in-progress (asset)	*1 000 000 x 60%*	600 000	
Variable overheads	*1 000 000 x 40%*	400 000	
Bank	*Given*		1 000 000
Variable overheads paid: 60% manufacturing and 40% non-manfacturing			
20X1			
Fixed manufacturing overhead (suspense)	*1 000 000 x 80%*	800 000	
Depreciation (admin expense)	*1 000 000 x 20%*	200 000	
Plant: accumulated depreciation	*1 000 000 x 80%*		800 000
Buildings: accumulated depreciation	*1 000 000 x 20%*		200 000
Depreciation: 80% manufacturing and 20% non-manfacturing			
20X1			
Fixed manufacturing overhead (suspense)	*1 000 000 x 70%*	700 000	
Bank *			700 000
Factory rent paid: manufacturing			
20X1			
Salaries (expense)	*1 000 000 x 30%*	300 000	
Bank *			300 000
Managerial salaries paid: non-manufacturing			
20X1			
Raw materials (asset)		100 000	
Bank			100 000
Transport inwards of raw materials			
20X1			
Transport outwards (distribution expense)		50 000	
Bank			50 000
Transport outwards of finished goods			
20X1			
Storage warehouse rent and insurance (expense)		100 000	
Bank			100 000
Storage costs relating to finished goods			
20X1			
Salaries (distribution expense)		400 000	
Bank			400 000
Sales representative salaries			
20X1			
Work-in-progress (asset)		300 000	
Bank			300 000
Wooden boxes used to package biltong product			

**: notice that 2 separate journals were processed for the C1 000 000 fixed overheads. This is because 2 separate payments would have been made: one to the landlord and one to the employees).*

Solution 13.6 continued . . .

a) continued …

		Debit	Credit
20X1			
Delivery costs (expense)		500 000	
Bank			500 000
Cardboard boxes used in deliveries of biltong boxes to customers			
20X1			
Work-in-progress (asset)	*W1*	1 200 000	
Fixed manufacturing overhead (suspense)			1 200 000
Allocation of fixed manufacturing overheads to WIP at C6 per box			
20X1			
Fixed manufacturing overheads (expense)	*W1*	300 000	
Fixed manufacturing overhead (suspense)			300 000
Unallocated fixed manufacturing overheads expensed			
20X1			
Work-in-progress (asset)	*W2*	819 000	
Raw materials (asset)			819 000
Raw materials used:			
20X1			
Finished goods (asset)	*W3*	3 975 200	
Work-in-progress (asset)			3 975 200
Work-in-progress completed:			
20X1			
Cost of sales (expense)	*W4*	3 712 680	
Finished goods (asset)			3 712 680
Finished goods sold:			

W1: allocation of fixed manufacturing overheads

Fixed manufacturing overheads are allocated to the products at year end using the normal production (unless actual production is higher than normal):

$$\frac{\text{Fixed manufacturing overheads}}{\text{Budgeted production}}$$

$$\frac{\text{800 000 depreciation + 700 000 rent}}{\text{250 000}}$$

$$\frac{\text{1 500 000}}{\text{250 000}}$$

= C6 per box

Notice that when you process the 'allocation of FOs journal', you use the budgeted production as the denominator. If the actual production was greater than this, a subsequent reversal of an over-allocation of overheads would be processed and what results is that the actual overheads finally allocated to inventories is = FO / greater of the BP or AP.

Fixed overheads allocated to work-in-progress:

= 6 x 200 000

= 1 200 000

Fixed overheads expensed (unallocated):

= 800 000 + 700 000 – 1 200 000

= 300 000

Solution 13.6 continued . . .

a) continued …

W2: Costs		**Raw materials**
Opening balance		100 000
Purchases of raw materials		970 000
Transport inwards of raw materials		100 000
		1 170 000
Raw materials used	*1 170 000 x (100% - 30%)*	819 000
Balance on hand	*1 170 000 x 30%*	351 000

W3: Costs		**Work-in-progress**
Opening balance		250 000
Raw materials used	*From W2*	819 000
Wages	*From journals above*	1 800 000
Variable overheads	*From journals above*	600 000
Wooden boxes	*From journals above*	300 000
Fixed manufacturing overheads	*From journals above/ W1*	1 200 000
		4 969 000
Work-in-progress completed	*4 969 000 x (100% - 20%)*	3 975 200
Balance on hand	*4 969 000 x 20%*	993 800

W4: Costs		**Finished goods**
Opening balance		150 000
Work-in-progress completed	*From W3*	3 975 200
		4 125 200
Cost of goods sold	*4 125 200 x (100% - 10%)*	3 712 680
Balance on hand	*4 125 200 x 10%*	412 520

b) Year-end measurement

Normally it is considered to be inappropriate to calculate the net realisable value per classification of inventory, but since the raw materials is to be sold as is, it becomes its own product line and must be evaluated separately.

			Finished goods & Work-in-progress	**Raw materials**
W5. Net realisable value:	***FG***	***WIP***		
Expected selling price	*1 300 000*	*700 000*	2 000 000	300 000
Less:				
expected costs to complete	*(0)*	*(100 000)*	(100 000)	0
expected costs to sell	*(80 000)*	*(20 000)*	(100 000)	(50 000)
Net realisable value	*1 220 000*	*580 000*	1 800 000	250 000
Cost:				
Balance at 31/12/20X1	*412 520 (W4)*	*993 800 (W3)*	1 406 320	351 000 *(W2)*
W6. Lower of cost or net realisable value:			1 406 320	250 000
W7. Write-down required:	*RM: 351 000 – 250 000*		0	101 000

Journal required:

	Debit	**Credit**
31 December 20X1		
Write-down (expense)	101 000	
Raw materials (asset)		101 000
Write-down of inventories		

Solution 13.6 continued . . .

b) continued …

Notice that the net realisable value of the finished goods 1 220 000 (W5) exceeds its cost of 412 520 (W4) by a significant amount. The work-in-progress, on the other hand, has a net realisable value of 580 000, which is far less than its cost of 993 800. Since the work-in-progress is to be sold as a finished product, the net realisable value of the combined work-in-progress and finished goods is compared with the combined cost thereof, with the result that no write-down was required (the combined net realisable value exceeded the combined cost). Had this not been the case, the work-in-progress would have been written-down to 580 000.

c) Disclosure

BUCK LTD
EXTRACTS FROM STATEMENT OF FINANCIAL POSITION
AS AT 31 DECEMBER 20X1

	Note	20X1 C	20X0 C
ASSETS			
Current assets			
Inventories	3	1 656 320	500 000

BUCK LTD
EXTRACTS FROM STATEMENT OF COMPREHENSIVE INCOME
FOR THE YEAR ENDED 31 DECEMBER 20X1

	Note	20X1 C	20X0 C
Revenue		xxx	Xxx
Cost of inventories expense		4 113 680	Xxx
Cost of administration		xxx	Xxx
Cost of distribution		xxx	Xxx
Other costs		xxx	Xxx
Finance charges		xxx	Xxx
Profit before tax	5	xxx	Xxx

BUCK LTD
EXTRACTS FROM NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 20X1

		20X1 C	20X0 C
3. Inventory			
Finished goods	*W4*	412 520	150 000
Work-in-progress	*W3*	993 800	250 000
Raw materials	*W2 and Part B*	250 000	100 000
		1 656 320	500 000

The company pledged C150 000 of finished goods as security for a non-current loan (see note…)

5. Profit before tax

Profit before taxation is stated after taking into account the following separately disclosable items:		20X1 C	20X0 C
Cost of inventories expense		4 113 680	xxx
- cost of goods sold	*3 712 680 (W4)+ 300 000 (W1)*	4 012 680	xxx
- write-down of inventories	*(Part B)*	101 000	xxx
Depreciation		200 000	xxx
- total depreciation	*800 000 + 200 000*	1 000 000	xxx
- less capitalised to inventory		(800 000)	xxx

Notice that cost of inventories expense includes all costs of inventories that were expensed through sales, underabsorption of fixed manufacturing overheads (300 000) and write-downs (101 000).

Solution 13.7

a) Fixed overhead application rate (actual):

Total fixed overheads for the 10 month period: C80 000/12x10 + C40 000/12x10 = C100 000

$$\frac{\text{C100 000}}{\text{20 000 (budget greater than actual)}}$$

= C5/ unit

b) Fixed overhead held (absorbed) in closing stock:

C5/unit x (12 000 - 10 000)

= C10 000

c) Fixed overhead expensed:

Through under-productivity: C100 000 – C5 x 12 000u = C40 000
Through Cost of sales: C5 x 10 000u = C50 000
Total expensed during the year: C40 000 + C50 000 = C90 000

Ledger accounts (not required – given for interest sake only)

Inventory

Description	*C*	*Description*	*C*
FMOS	(2) 60 000	Cost of sales	(4) 50 000
		C/ balance	(5) 10 000
	60 000		60 000
O/ balance	(5) 10 000		

Bank

Description	*C*	*Description*	*C*
		FMOS (given)	(1) 100 000

Fixed manufacturing overheads suspense

Description	*C*	*Description*	*C*
Bank (FMO)	(1) 100 000	Inventory (C5 x 12 000)	(2) 60 000
		FMO expense/ Cost of sales	(3) 40 000
	100 000		100 000

Cost of sales

Description	*C*	*Description*	*C*
FMO suspense	(3) 40 000	P&L	90 000
Inventory	(4) 50 000		
	90 000		90 000

Note:
(1) Assumed that fixed overheads were paid for in cash.
(2) The company under-produced with the result that not all fixed manufacturing overheads are allocated to the inventory account.
(3) The balance of the fixed manufacturing overheads are expensed immediately (generally to cost of sales)
(4) 10 000 units sold during the year at a fixed manufacturing cost per unit of C5
(5) 2 000 units left at year-end (12 000 – 10 000) at total cost per unit of C5

Solution 13.8

Journals		**Debit**	**Credit**
Inventory: raw materials (asset)	*Given*	1 600 000	
Bank			1 600 000
Raw materials purchased			
Inventory: work-in-progress (asset)	*100 000 x 4*	400 000	
Inventory: raw materials (asset			400 000
Raw materials used during the year			
Inventory: work-in-progress (asset)	*Given*	500 000	
Bank			500 000
Labour costs paid			
Telephone expense	*Given*	20 000	
Bank			20 000
Telephone expense paid (office phone bill = administration)			
Inventory: work-in-progress (asset)	*100 000 u x 1 kw x C0.1*	10 000	
Electricity expense	*15 000 – 10 000*	5 000	
Bank			15 000
Electricity costs paid			
Entertainment expense	*Given*	8 000	
Bank			8 000
Braai for factory staff is entertainment (may not be capitalised)			
Rent expense	*25% x 400 000*	100 000	
Fixed manufacturing overheads suspense	*75% x 400 000*	300 000	
Bank	*Given*		400 000
Rent of factory and administration space paid for			
Inventory: work-in-progress (asset)	*(300k ÷ 300k units)x100k units*	100 000	
Fixed manufacturing overheads suspense			100 000
Fixed manufacturing overheads allocated based on BFMOAR			
Fixed manufacturing overheads expense: under provision		200 000	
Fixed manufacturing overheads suspense	*300 000 – 100 000*		200 000
Unallocated fixed manufacturing overheads expensed (under-productivity = inefficiency, which may not be capitalised)			
Inventory: finished goods (asset)	*100 000u x 90% x 10.10 (W3)*	909 000	
Inventory: work-in-progress (asset)			909 000
Finished work in progress transferred to finished goods			
Cost of sales expense	*W4*	333 300	
Inventory: finished goods (asset)			333 300
Cost of sales for the year			

Solution 13.8 continued …

Workings:

W1. Budgeted fixed manufacturing overhead application rate (BFMOAR):

300 00 overheads ÷ 300 000 units = C 1/unit

W2. Fixed manufacturing overhead allocated to work-in-progress

C1 BFMOAR x 100 000 units actual production = C100 000 capitalised

Fixed manufacturing overheads suspense			
Description	***C***	***Description***	***C***
Bank (FMO)	300 000	WIP	100 000
		FMO expense/ under provision	200 000
	300 000		300 000

W3. Total manufacturing cost per unit

		Cost per unit
		C
Raw materials	*Given*	4.00
Electricity	*1 KW x C0.1*	0.10
Labour	*C500 000 / 100 000*	5.00
FMOAR	*Budgeted rate*	1.00
		10.10

W4. Finished goods manufactured and cost of sales thereof

	Balance/ contra-entry:		**C**
Stock on hand at the beginning of the year	*Opening balance*	*20 000 x 10.10 (W3) **	202 000
Completed during the year	*Work-in-progress*	*100 000 x 90% x 10.10 (W3)*	909 000
Finished goods available during the year			1 111 000
Finished goods sold	*Cost of sales*	*1 111 000 x 30%*	(333 300)
Stock on hand at the end of the year	*Closing balance*		777 700

- The costs per unit in the prior year were the same as in the current year.

Solution 13.9

a)

Carrying amounts on each inventory account at 31 January 20X8		**20X8**
		C
W1. Consumables (packing materials): 31 January 20X8		
Opening balance	*First month of operations*	0
Purchased	*(685 000/7 x 9)*	880 714
Used in production	*(880 714 x 75%)*	(660 536)
Closing balance		220 178
W2. Raw materials: 31 January 20X8		
Opening balance	*First month of operations*	0
Cost of purchases		
• Marked price including VAT	*Given*	605 000
• Less VAT	*605 000 / 114% x 100%*	(74 298)
		530 702
• Less trade discount (8%)	*530 702 x 8%*	(42 456)
• Less settlement discounts	*Cost of inventory to be net of all settlement discounts, even if not successfully earned*	(4 200)
		484 046
Used in production (80% balancing)	*484 046 x (100% - 20%)*	(387 237)
Closing balance	*484 046 x 20%*	96 809
W3. Work in progress: 31 January 20X8		
Opening balance	*First month of operations*	0
Raw materials used (above)	*W2*	387 237
Salaries and wages	*500 000 x 55%*	275 000
Variable overheads	*100 000 x 70%*	70 000
Fixed manufacturing overheads allocated (W1)	*W5: 151.278 x 1 100*	166 406
Packing materials (above)	*W1 **	660 536
		1 559 179
Less transferred to finished goods		(1 559 179)
Closing balance	*Given*	0
W4. Finished goods: 31 January 20X8		
Opening balance	*First month of operations*	0
Transferred from WIP (above)		1 559 179
Less cost of goods sold	*1 559 179 x 80%*	(1 247 343)
Closing balance	*Given*	311 836

* these packing materials could also have been included in a raw materials account if preferred since it constitutes part of the final product, unlike a pure consumable (e.g. cleaning materials).

Solution 13.9 continued …

a) continued …

W5: Fixed manufacturing overheads (FMO)

		C
Rent and insurance - factory	*140 000 for the year / 12*	11 667
Rent - warehouse	*Included: a necessary part of the production process*	30 000
Other fixed manufacturing overheads	*285 000 for January x 65%*	185 250
Total actual FMO for January		226 917
Normal units per month	*18 000 / 12*	1 500
Fixed manufacturing overheads per unit	*226 917 / 1 500 units*	151.278
Fixed manufacturing overheads allocated	*1 100 actual x 151.278*	166 406

b)

W4. Finished goods: 31 January 20X8 – after flood damage		**C**
Finished goods at cost	*W4*	311 836
Net realisable value		(295 000)
• Expected selling price	*Given*	400 000
• Costs to complete	*Given*	(90 000)
• Selling costs	*Given*	(15 000)
Inventory write down required to NRV		16 436
Finished goods balance as at 31 January 20X8		295 000

c)

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3. Inventory		**20X8**
		C
Finished goods	*W6*	295 000
Work-in-progress	*W3*	0
Raw materials	*W2*	96 809
Consumable stores	*W1*	220 178
		611 988

Solution 13.10

a)
In terms of IAS 2.18, any costs (regardless of the amount), that are directly attributable in bringing the inventory to the location and in a condition to be used as intended by management may be capitalised to the asset. Thus the C50 000 can be included in the cost of the fabric. Note however that additional consideration must be given to calculating the net realisable value and ensuring that it is not less that this new higher cost of the fabric (or else a write down would be required).

b)
Yes, the consultant's fees may be capitalised to the cost of the baggies inventory under IAS 2.18: any costs (regardless of the amount), that are directly attributable in bringing the inventory to the location and in a condition to be used as intended by management may be capitalised to the asset.

c)

		Debit	Credit
Fixed overheads suspense account	*85 000 x 30*	700 000	
Bank/ creditors etc			700 000
Fixed manufacturing overhead costs paid			
Inventory	*(700 000 / 100 000 x 85 000)*	595 000	
Fixed overheads suspense account			595 000
Allocation of fixed overheads using the BFMOAR			
Fixed manufacturing overhead expense	*(700 000 – 595 000)*	105 000	
Fixed overheads suspense account			105 000
Unallocated fixed overheads expensed			
Inventory	*85 000 x 30*	2 550 000	
Bank/ creditors etc			2 550 000
Variable costs paid and capitalised			
Cost of sales	*(595 000 + 2 550 000) / 85 000 x 75 000*	2 775 000	
Inventory			2 775 000
Cost of inventory sold:			

Note: In this case, actual production was lower than normal production and thus the under-absorbed portion of fixed overheads is expensed to cost of sales. However, if actual production exceeds normal production then actual production is used as the allocation base and the total fixed overhead is absorbed into inventory.

d)
Fabric X should be valued at cost because no write down below cost to NRV is permitted if the *finished goods* in which the fabric is used (the T-shirts) are expected to be sold at or above cost (IAS 2.32).